



Sports Injury Statistics

How frequently do sports injuries occur?

In the U.S., about 30 million children and teens participate in some form of organized sports, and more than 3.5 million injuries each year, which cause some loss of time of participation, are experienced by the participants. Almost one-third of all injuries incurred in childhood are sports-related injuries. By far, the most common injuries are sprains and strains.

Obviously, some sports are more dangerous than others. For example, contact sports such as football can be expected to result in a higher number of injuries than a noncontact sport such as swimming. However, all types of sports have a potential for injury, whether from the trauma of contact with other players or from overuse or misuse of a body part.

The following statistics are from the National SAFE KIDS Campaign and the American Academy of Pediatrics:

Injury rates:

More than 3.5 million children ages 14 and younger get hurt annually playing sports or participating in recreational activities.

Although death from a sports injury is rare, the leading cause of death from a sports-related injury is a brain injury.

Sports and recreational activities contribute to approximately 21 percent of all traumatic brain injuries among American children.

Almost 50 percent of head injuries sustained in sports or recreational activities occur during bicycling, skateboarding, or skating incidents.

More than 775,000 children, ages 14 and younger, are treated in hospital emergency rooms for sports-related injuries each year. Most of the injuries occurred as a result of falls, being struck by an object, collisions, and overexertion during unorganized or informal sports activities.

Where and when:

Playground, sports, and bicycle-related injuries occur most often among children between ages 5 and 14 years old.

The highest rates of injury occur in sports that involve contact and collisions.

More severe injuries occur during individual sports and recreational activities.

Most organized sports-related injuries (62 percent) occur during practice.

Types of sports and recreational activities

Consider these estimated injury statistics for 2009 from the Consumer Product Safety Commission:

Basketball. More than 170,000 children ages 5 to 14 were treated in hospital emergency rooms for basketball-related injuries.

Baseball and softball. Nearly 110,000 children ages 5 to 14 were treated in hospital emergency rooms for baseball-related injuries. Baseball also has the highest fatality rate among sports for children ages 5 to 14, with three to four children dying from baseball injuries each year.

Bicycling. More than 200,000 children ages 5 to 14 were treated in hospital emergency rooms for bicycle-related injuries.

Football. Almost 215,000 children ages 5 to 14 were treated in hospital emergency rooms for football-related injuries.

Ice hockey. More than 20,000 children ages 5 to 14 were treated in hospital emergency rooms for ice hockey-related injuries.

In-line and roller skating. More than 47,000 children ages 5 to 14 were treated in hospital emergency rooms for in-line skating-related injuries.

Skateboarding. More than 66,000 children ages 5 to 14 were treated in hospital emergency rooms for skateboarding-related injuries.

Sledding or toboggan. More than 16,000 children ages 5 to 14 were treated in hospital emergency rooms for sledding-related injuries.

Snow skiing or snowboarding. More than 25,000 children ages 5 to 14 were treated in hospital emergency rooms for snow boarding and snow skiing-related injuries.

Soccer. About 88,000 children ages 5 to 14 were treated in hospital emergency rooms for soccer-related injuries.

Trampolines. About 65,000 children ages 14 and under were treated in hospital emergency rooms for trampoline-related injuries.

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Sports Should Be Child's Play

By DAVID EPSTEIN JUNE 10, 2014

THE national furor over concussions misses the primary scourge that is harming kids and damaging youth sports in America.

The heightened pressure on child athletes to be, essentially, adult athletes has fostered an epidemic of hyperspecialization that is both dangerous and counterproductive.

One New York City soccer club proudly advertises its development pipeline for kids under age 6, known as U6. The coach-picked stars, “poised for elite level soccer,” graduate to the U7 “pre-travel” program. Parents, visions of scholarships dancing in their heads, enable this by paying for private coaching and year-round travel.

Children are playing sports in too structured a manner too early in life on adult-size fields — i.e., too large for optimal skill development — and spending too much time in one sport. It can lead to serious injuries and, a growing body of sports science shows, a lesser ultimate level of athletic success.

We should urge kids to avoid hyperspecialization and instead sample a variety of sports through at least age 12.

Nearly a third of youth athletes in a three-year longitudinal study led by

Neeru Jayanthi, director of primary care sports medicine at Loyola University in Chicago, were highly specialized — they had quit multiple sports in order to focus on one for more than eight months a year — and another third weren't far behind. Even controlling for age and the total number of weekly hours in sports, kids in the study who were highly specialized had a 36 percent increased risk of suffering a serious overuse injury. Dr. Jayanthi saw kids with stress fractures in their backs, arms or legs; damage to elbow ligaments; and cracks in the cartilage in their joints.

Because families with greater financial resources were better able to facilitate the travel and private coaching that specialization requires, socioeconomic status turned up as a positive predictor of serious injury. Some young athletes now face surgeries befitting their grandparents. Young hockey goaltenders repeatedly practice butterfly style — which stresses the developing hip joint when the legs are splayed to block the bottom of the goal. The sports surgeon Marc Philippon, based in Vail, Colo., saw a 25-year-old goalie who already needed a hip replacement.

In the Loyola study, sport diversification had a protective effect. But in case health risks alone aren't reason enough for parents to ignore the siren call of specialization, diversification also provides performance benefits.

Kids who play multiple “attacking” sports, like basketball or field hockey, transfer learned motor and anticipatory skills — the unconscious ability to read bodies and game situations — to other sports. They take less time to master the sport they ultimately choose.

Several studies on skill acquisition now show that elite athletes generally practiced their sport less through their early teenage years and specialized only in the mid-to-late teenage years, while so-called sub-elites — those who never quite cracked the highest ranks — homed in on a single sport much sooner.

Data presented at the April meeting of the American Medical Society for Sports Medicine showed that varsity athletes at U.C.L.A. — many with full scholarships — specialized on average at age 15.4, whereas U.C.L.A. undergrads who played sports in high school, but did not make the

intercollegiate level, specialized at 14.2.

We may prize the story of Tiger Woods, who demonstrated his swing at age 2 for Bob Hope. But the path of the two-time N.B.A. M.V.P. Steve Nash (who grew up playing soccer and didn't own a basketball until age 13) or the tennis star Roger Federer (whose parents encouraged him to play badminton, basketball and soccer) is actually the norm.

A Swedish study of sub-elite and elite tennis players — including five who ranked among the top 15 in the world — found that those who topped out at as sub-elites dropped all other sports by age 11. Eventual elites developed in a “harmonious club environment without greater demands for success,” and played multiple sports until age 14.

The sports science data support a “sampling period” through at least age 12. Mike Joyner, a Mayo Clinic physician and human performance expert, would add general physical literacy-building to the youth sports menu: perhaps using padded gymnastics gyms for parkour, which is essentially running, climbing or vaulting on any obstacle one can find.

In addition to athletic diversity, kids' sports should be kid-size.

In Brazil, host of this month's World Cup, kids are weaned on “futsal,” a lightly structured and miniaturized form of soccer. Futsal is played on tiny patches of grass or concrete or on indoor courts and typically by teams of five players.

Players touch the ball up to five times as frequently as they do in traditional soccer, and the tighter playing area forces children to develop foot and decision-making skills under pressure.

A futsalization of youth sports generally would serve engagement, skill development and health.

USA Hockey (which has barred checking in youth games) recently invited adults to play on a 310-by-130-foot ice rink to show them what it's like for an 8-year-old to play on a regulation rink. The grown-ups' assessments: “too much time between the action”; “it's hard to communicate because everyone is spread out so far”; “you end up spending a lot of time in open space.”

Futsal, basketball and ... padded parkour? Sounds like a strange three-sport athlete, and a perfect model for kids.

David Epstein is a reporter at ProPublica and the author of “The Sports Gene.”

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After a concussion, when can teens return to the football field?

By Kansas City Star, adapted by Newsela staff on 11.05.14

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Mychal Shaw poses for a portrait on Oct. 17, 2014, at Lee's Summit North High School in Lee's Summit, Missouri. A year ago, Shaw suffered a concussion during a football game and had serious problems as a result of the head injury, but has decided to continue his football career. Photo: Tammy Ljungblad/Kansas City Star/MCT

On a cool October morning, still nearly an hour before sunrise, Mychal Shaw emerges from his bedroom. He pulls a Lee's Summit North High School shirt over his head and joins his family in the kitchen for a morning prayer.

"We pray that you keep him safe in his football game tonight and let the angels watch over him," his mother Ryana says as she does each week on Mychal's game days.

A year ago, Mychal suffered a concussion in a game that rendered him temporarily unable to walk or speak. Memory loss followed, forcing him to drop two high school classes, while extreme sensitivity to light and sound prevented him from attending his team's games, even as a spectator.

This season, though, he's back on the field, a senior for the Broncos.

Watching Concussions Closely

Nearly 1,500 high school football players in Missouri suffered concussions in 2012, and most of them returned to action within two weeks, according to Missouri high school officials.

The attention given to concussions has never been more intense, prompting coaches, parents, schools, lawmakers — everyone — to be hypersensitive to head injuries and their symptoms.

But it's what happens afterward that is less precise, because it is not clear when a high school player is ready to return to the football field after suffering a head injury.

"I think we all worry about sending a kid back out there too soon. Any doctor who says otherwise is lying," said Greg Canty, director of the Center for Sports Medicine at Children's Mercy Hospital in Kansas City.

"You like to practice medicine based on evidence that's supported with medical studies. We don't have that here," he said.

Second-Impact Syndrome

There were 17 deaths across all levels of football in 2013, according to figures gathered annually by the National Center for Catastrophic Sport Injury Research.

All 17 were high school athletes.

Doctors said they are even more concerned with "second-impact syndrome," an often fatal condition that occurs when a player suffers a second concussion before the first has healed.

"Once you have the symptoms, the brain is more fragile," Canty said. A second hit could "result in potentially catastrophic injury," he said.

Adolescents face the most danger of second-impact syndrome because their brains are still maturing, says Brett Osborn, a neurosurgeon who has studied concussions in sports.

High school athletes suffer concussions at nearly twice the rate of college players, the Institute of Medicine and National Research Council determined last October.

But the treatment they receive is inconsistent.

When To Return

Brian Mahaffey, who wrote an article about concussions in the journal *Missouri Medicine* last year, advises that high school athletes should be symptom-free for seven days before returning to the practice field. An athlete of middle school age should wait 10 days after all symptoms have subsided, he said.

Osborn, on the other hand, recommends that a child sit out at least six weeks after suffering a concussion, even if it's mild.

State law isn't so cautious.

Missouri says a player must be removed from competition for only 24 hours before evaluation, while Kansas has no such timetable.

A player who has suffered a concussion immediately becomes more likely to suffer another one.

As a result, Mahaffey suggests to some patients they quit football, though determining that proper stopping point is often guesswork.

A Mom Forbids Football

Barb Kunz's son Alex took a helmet-to-helmet hit during an Olathe South practice in 2013. He was knocked backward but never lost consciousness.

A day later, Alex was having trouble comprehending basic ideas in math class. He remembers walking to the cafeteria for lunch feeling confused.

As he sat down for lunch, he shook his two milk cartons — as he did every day. But this time, he had opened the cartons before shaking them. Milk sprayed everywhere.

"It took me a good half second before I realized I was showering myself with milk," he said. "I was soaked."

Alex left school 20 minutes later to see a doctor, who diagnosed him with a concussion.

His mother forbade him from ever taking the field again.

His brother Andy was also pulled from the Olathe South team.

Taking Computerized Assessments

On the first play of his 2014 season, Liberty High School junior Josh Watson sniffed out a Lee's Summit West running play. He sprinted toward the line of scrimmage, where he met tailback Ryan Williams.

Bang.

The ensuing hit was jarring enough to send Watson to the turf, where he remained before needing a trainer's assistance to walk to the sideline.

Watson begged the team's trainers to return the game, but they thought he displayed symptoms of a concussion. That spelled the end of his playing time in the season opener.

"That decision is out of my hands. It's not me making the call," Liberty coach Chad Frigon said. "And that's a good thing. As a coach, I want to win and put him back in the game."

The process of rejoining the team — which Watson did the following Wednesday, after it was determined he did not have a concussion — has new guidelines.

Several area high schools in Missouri and Kansas, as well as a handful of middle schools, have added a new program. Players take a computerized assessment before the season, which gives them a baseline score.

If a player is later thought to have had some sort of head injury, he takes the test again and the scores are compared.

"Computerized tests can offer a false confidence," Canty said. "A player passes the test and he's often determined to be fine. Many times we need more and better evidence to support that determination."